# REPLY BRIEF UNDER 37 C.F.R. 41.41

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: William A. Harris
Serial No.: 09/751,610
Filed: December 29, 2000

Examiner: Cassandra F. Cox
Group Art Unit: 2816
Docket: H26054US

For: PRECISION PHASE GENERATOR

REPLY BRIEF UNDER 37 CFR § 41.41

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 223 13-1450

Sir:

The Reply Brief is presented in response to the Examiner's Answer mailed March 13, 2006, and in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on July 26, 2005, from the Final Rejection of claims 1-3, 20-24, 26-29, 31-37, 39-45, 47 and 48 of the above-identified application, as set forth in the Final Office Action mailed on April 28, 2005.

No fees are due. The Appellants respectfully request consideration and reversal of the Examiner's rejections of the pending claims.

## STATUS OF THE CLAIMS

Claims 1-3, 20-24, 26-29, 31-37, 39-45 and 47-48 are pending in the application, and are rejected. Claims 1-3, 20-24, 26-29, 3 1-37, 39-45 and 47-48 are being appealed.

## GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Claims 1-3, 20-24, 26-29, 3 1-37, 39-45 and 47-48 stand rejected under 35 USC § 103(a) as being unpatentable over Li (U.S. Patent No. 5,058,132) in view of Epstein (U.S. Patent No. 4,093,870) and Mano (Computer Engineering Hardware Design, 1988, pgs. 130-132).

## 7. ARGUMENT

*Rejection*

Claims 1-3, 20-24, 26-29, 3 1-37, 39-45 and 47-48 stand rejected under 35 USC §103(a) as being unpatentable over Li (U.S. Patent No. 5,058,132) in view of Epstein (U.S. Patent No. 4,093,870) and Mano (Computer Engineering Hardware Design, 1988, pgs.130-132).

Each of the independent claims 1, 20, 32, and 40 recite, among other elements, a Johnson counter comprising an input JK flip-flop, an output JK flip-flop, and a plurality of middle JK flip-flops. The remaining claims are variously dependent on, and recite further features with respect to, the independent claims 1, 20, 32, and 40.

The applicant respectfully submits that the final Office Action has not identified prior art evidence of a suggestion for combining Li with Epstein and Mano, or evidence of a reasonable expectation of success of this combination.

Li relates to a clock distribution system and shows a circuit called a Johnson counter 114 in Figure 2. A prior Office Action stated that "Li does not disclose the particular design of the Johnson counter."[1] However, at Column 5, lines 54-55, Li describes the Johnson Counter as a divide by ten, five bit shift register. There is no suggestion in Li that a Johnson Counter may be fabricated from J-K flip-flops. Epstein relates to an apparatus for testing reflexes and shows a circuit called a Johnson counter 54 in Figure 4. Epstein's Johnson counter 54 has only three JK flip-flops.

Mano describes different types of flip-flops, and contrasts the operation of each. Specifically, Mano describes JK flip-flops, D flip-flops, SR flip-flops, and T flip-flops.[2] Mano does not discuss Johnson counters, or the relative merits of different Johnson counters.

[1] Final Office Action dated April 7, 2004, page 2.
[2] Mano, page 131.

Neither Li nor Epstein show a Johnson counter comprising an input JK flip-flop, an output JK flip-flop, and a plurality of middle JK flip-flops as is recited in the independent claims 1, 20, 32, and 40. Mano does not show or discuss a Johnson counter. Therefore, even as combined, Li, Epstein, and Mano do not show the claimed invention.

There is also no clear and particular evidence of a suggestion or motivation to combine Li, Epstein, and Mano. The final Office Action stated that:

> "[I]t would have been obvious .... to implement the 5 stages (flip flop circuits) Johnson counter of Li with a five JK flip flop circuit arranged as in Epstein because JK flip flop is reliable thus preventing the counter from erroneous operation as taught by Mano." 3

Li does not contemplate using JK flip-flops to fabricate his Johnson Counter. Epstein does not show a counter with five JK flip flops. Epstein's Johnson counter has only three JK flip-flops. More significantly, Mano does not show or discuss Johnson counters. Mano does not comment on the reliability of any particular Johnson counter, and does not teach that any particular Johnson counter suffers from erroneous operation. One would not be motivated by the disclosure of the JK flip-flop based Johnson Counter of Epstein to substitute it for the divide by ten, five bit shift register of Li. Additionally, one skilled in the art would not be motivated by Mano to modify the Johnson counter of Li.

There is no evidence of the rationale stated in the final Office Action and quoted above for combining Li, Epstein, and Mario as is required by *In re Lee*. There is no showing of clear and particular evidence of a suggestion for combining Li, Epstein, and Mano as is required by *In re Dembiczak*.

Obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Li using the teachings of Epstein and Mano. More specifically, as is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combinations. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.

[3]Final Office Action, page 3.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicant's disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicant's disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

The Final Office Action and the arguments set forth in the Examiner's Answer fail to show the multiple levels of suggestion needed to combine three references. There is no evidence shown of a suggestion to combine Li with Epstein, and then evidence of a suggestion to combine Mano with Li and Epstein.

The Final Office Action has also not identified evidence of a reasonable expectation of success for this combination in the prior art as is required by MPEP 2143, *In re Vaeck* and *In re Lee*. There is no evidence of how the elements of Li, Epstein, and Mano are to be arranged and assembled together. The Federal Circuit has stated that all elements of a *prima facie* case of obviousness must be established in a rejection:

> "Omission of a relevant factor required by precedent is both legal error and arbitrary agency action." [4]

A *prima facie* case of obviousness can not be established against claims 1-3, 20-24, 26- 29, 31-37, 39-45 and 47-48 without evidence of a reasonable expectation of success.

The final Office Action is improperly using hindsight in combining Li, Epstein, and Mano contrary to *In re Dembiczak*. This is a case where "the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.'"[5] The court in *Ruiz* emphasized that "[t]he necessity of *Graham* findings is especially important where the invention is less technologically complex."[6]

The applicant respectfully submits that a *prima facie* case of obviousness against claims 1-3, 20-24, 26-29, 3 1-37, 39-45 and 47-48 has not been established in the final Office Action, and that claims 1-3, 20-24, 26-29, 3 1-37, 39-45 and 47-48 are in condition for allowance.

[4] *In re Lee*, 61 USPQ2d 1430, 1434 (Fed. Cit. 2002).
[5] *A.B. Chance Co.*, 57 USPQ2d 1161, 1166 (Fed. Cit. 2000).
[6] *Ruiz v. A.B. Chance Co.*, 57 USPQ2d 1161, 1166 (Fed. Cit. 2000).

*Request For Reversal*

For the foregoing reasons, the appellant respectfully submits that the rejection of claims 1-3, 20-24, 26-29, 3 1-37, 39-45, 47 and 48 under 35 U.S.C. §103 was erroneous. Reversal of this rejection is respectfully requested, as well as the allowance of all the rejected claims.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 01-2384.

Respectfully submitted,

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